

CLAIM AMENDMENTS

1. (currently amended) A gas-measuring device with noise compensation having a gas sensor $[(1)]$ for generating a measurement signal $[(S1)]$ dependent upon gas concentration and which includes a noise component, characterized in that the gas sensor $[(1)]$ has connected downstream thereof a high-pass filter $[(13)]$ with an adjustable limiting frequency ~~and whereby the limiting frequency is predeterminable by means of a selector~~ an evaluating unit as a function of the noise component.

2. (currently amended) The gas-measuring device according to patent claim 1 characterized in that a low-pass filter $[(5)]$ is provided ~~which is~~ connected between the evaluating unit and the gas sensor $[(1)]$.

3. (currently amended) The gas-measuring device according to patent claim 2, characterized in that a computing unit $[(6)]$ is connected between the evaluating unit and the low-pass filter $[(5)]$ and is provided for calculating ~~[[the]]~~ a pitch $[(S')]$ of the filter output signal $[(S5)]$ arising from the low-pass filter 5.

4. (currently amended) The gas-measuring device according to patent claim 1, characterized in that the ~~selector~~ evaluating unit at its output side is connected with a control

input $[(13.1)]$ of the high-pass filter $[(13)]$ and is so configured that with it, based upon the pitch $[(S')]$ of the filter output signal $[(S5)]$ a value can be selected with which $[[the]]$ a limiting frequency of the high-pass filter 13 is adjustable.

5. (currently amended) The gas-measuring device according to claim 1 characterized in that the selector evaluating unit is so configured that with it a first filter value can be predetermined when $[[the]]$ a difference between the sensor value and a set point exceeds a limiting value, so that a second filter value is predetermined when the difference between the sensor value and the set point value lies within a certain range, and a third filter value is predetermined when the sensor value corresponds to the set-point value.

6. (currently amended) The gas-measuring device according to patent claim 5 characterizing in that the first, second, and third filter values are time constants $[(THE)]$.

7. (currently amended) The gas-measuring device according to claim 1, characterized in that the high-pass filter $[(13)]$ has a comparator $[(3)]$ connected downstream thereof.

8. (currently amended) The gas-measuring device according to claim 1, characterized in that the gas sensor $[(1)]$ is an SnO_2 gas sensor.

9. (currently amended) The gas sensor according to claim 1, characterized in that the gas sensor $[(1)]$ is so configured that nitrogen oxide is measurable therewith.

10. (currently amended) A method of gas measurement with noise compensation, whereby a measurement signal $[(S1)]$ dependent upon gas concentration is produced by a gas sensor $[(1)]$ and the measurement signal $[(S1)]$ can include a noise component, characterized in that the measurement signal $[(S1)]$ is filtered by means of a high-pass filter $[(13)]$ with an adjustable limiting frequency, whereby the limiting frequency is selectable by a selector evaluating unit as a function of the noise component.